



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,558	02/26/2004	Jeffrey S. Haas	IL-11088	7059

7590 11/01/2006

Eddie E. Scott
Assistant Laboratory Counsel
Lawrence Livermore National Laboratory
P.O. Box 808, L-703
Livermore, CA 94551

EXAMINER

SIEFKE, SAMUEL P

ART UNIT PAPER NUMBER

1743

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/788,558

Applicant(s)

HAAS ET AL.

Examiner

Samuel P. Siefke

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/3/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kardish (USPN 5,648,047).

Kardish teaches a hand-held device for rapid colorimetric detection of explosives, narcotics, and other chemicals which can be accurately operated by non-skilled personnel and perform numerous tests in a quick sequential manner without exposing a user to hazardous reagents and without exposing sensitive reagents to deteriorating environmental conditions, the device comprising (a) a housing for handling and using the device, the housing including a sampling area and a testing area; (b) a roll of substrate for sampling materials suspected as including the chemical; (b) a feeding reel being rotatably connected to the housing, the feeding reel being for accommodating the roll of substrate; (c) at least one container for accommodating at least one detecting reagent, the at least one detecting reagent is for the colorimetric detection of the chemical; and (d) at least one dispensing mechanism for dispensing a predetermined

volume of the at least one reagent onto the substrate at the testing area (abstract, see fig. 1, col. 5, lines 30- col. 6, lines 60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kardish et al. (USPN 5,648,047) in view of Dietze et al. (USPN 5,035,862).

Kardish teaches a hand-held device for rapid colorimetric detection of explosives, narcotics, and other chemicals which can be accurately operated by non-skilled personnel and perform numerous tests in a quick sequential manner without exposing a user to hazardous reagents and without exposing sensitive reagents to deteriorating environmental conditions, the device comprising (a) a housing for handling and using the device, the housing including a sampling area and a testing area; (b) a roll of substrate for sampling materials suspected as including the chemical; (b) a feeding reel being rotatably connected to the housing, the feeding reel being for accommodating the roll of substrate; (c) at least one container for accommodating at least one detecting reagent, the at least one detecting reagent is for the colorimetric detection of the chemical; and (d) at least one dispensing mechanism for dispensing a predetermined volume of the at least one reagent onto the substrate at the testing area (abstract, see fig. 1, col. 5, lines 30- col. 6, lines 60). Kardish teaches the testing area can be made of paper, cloth (polyester material) or a synthetic membrane (col. 5, line 45). Each reagent container has individual dispensing mechanisms for delivering the reagent to the test area (col. 6, lines 8-35). Kardish states that the containers 28a and 28b are made of transparent and elastic properties. It is the Examiners position that an elastic container can be squeezed to expel the reagent to the sample substrate. The dispenser further comprises a check valve 41 at the end of the dispenser to prevent air from entering the containers.

Kardish does not teach providing a heater under the sample area and a flat disk shaped sample pad.

Dietze teaches a heater that is placed in thermal contact with a test strip in order to achieve rapid and selective heating of individual test fields on the test strip (abstract). It would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a heater that is below and in thermal contact with the test strip in order to provide rapid and selective heating of the sample on the test strip. Regarding the chemical heater, see the instant application specification on page 12 regarding chemical heaters description. "This type of heater is well known in the art and need not be described here." It is well known in the art that adding heat to a reaction (sample and reagent) speeds up the reaction which is a desirable property to shorten the waiting time for the reaction product. Heating further increases the detection sensitivity (col. 1, lines 45-47). Therefore, in view of Applicant's admitted prior art and Dietze, one of ordinary skill in the art at the time of the invention would modify Kardish to employ an electric or chemical heater to heat a reaction in order to speed up the reaction time and increase detection sensitivity.

Regarding claim 10, 12, 22 and 24 it would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a battery powered heater because the device is portable and would require an independent power source to provide energy to the heater. Batteries are well known in the art as a portable power supply in these types of devices.

Regarding the dryer, it would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a dryer on the sample substrate in order to dry the reaction product so that a colorimetric determination can be made. It is well known in the art as admitted by the instant specification that dryers are employed for this purpose. The Applicant submits on page 22-23, dryer are well known in the art and need not be discussed here. The Applicant is referring to dryers and heaters for specifically drying sample when applied to the sample surface. The Examiner has provided proper motivation for why it would have been obvious to modify Kardish to employ a dryer to dry the reaction product so that a colorimetric determination can be made. This feature is routinely employed in test strips for rapid determination of colorimetric reactions. One of ordinary skill in the art would have recognized this feature and applied the dryer in the manner above. The Examiner notes that limitations on the manner in which the dryer is used are not attributed patentable weight in claims directed to a device. The device only has to disclose a structure that is capable of performing the function that the claim limitations requires.

Regarding claim 13, it would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a flat disk *shaped* sample pad because this is simply a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed shape of the sample pad was significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). The disk shape of a sample pad provides no patentable distinction over the rectangular test pad configuration of Kardish. The

Applicant argues that a disk shaped sample pad would destroy the reference of Kardish. The Examiner maintains that the modified Kardish in which the dispensers move in relation to the tests pads would not be destroyed by providing disk shaped sample pads.

Regarding claim claim 23 it is the Examiner position that a switch (power on/off) is inherently associated with a heater other wise it would be on all the time or off and would not be able to be turned on or off, which would render a heater inoperable and useless. Dietze teaches alternating current flows through the coils 13b of the heater which clearly indicates a switch in electrical voltage (col. 3, lines 51-56). Therefore Dietze teaches a switch for controlling a heater. The Examiner respectfully requests the error be withdrawn.

Response to Arguments

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

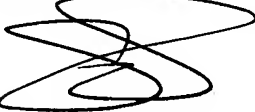
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Art Unit: 1743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sam P. Siefke



October 25, 2006


Bill Varden
Supervisory Patent Examiner
Technology Center 1700